

1 **REMARKS**

2 Applicant has carefully considered the positions of the Examiner and respectfully
3 requests reconsideration based upon the manifest differences between the present invention and
4 the cited references. In the October 19, 2004 Office Action the Examiner rejected Claims 1-47
5 under 35 U.S.C. § 103. Applicant herein responds to those rejections and highlights the
6 differences between the pending claims and the cited references such that it should become
7 apparent to the Examiner that these rejections should be reconsidered and withdrawn.

8 In the Office Action dated October 19, 2004, the Examiner rejected Claims 1-47 under 35
9 U.S.C. § 103 as being unpatentable over Whitehouse et al. U.S. Patent No. 6,403,952
10 ("Whitehouse") in view of Li et al. U.S. Patent No. 6,570,153 ("Li"). The Examiner cites that
11 Whitehouse discloses all of the elements of independent Claims 1, 21 and 41. In particular, the
12 Examiner argues that the cited reference teaches that "conducting rods are aligned in parallel,
13 wherein at least one capping electrode bounds said conducting rods."

14 Applicant respectfully submits the Examiner's reliance upon the cited references is
15 misplaced as Applicant's invention is very different from what is disclosed therein. Briefly,
16 Whitehouse teaches an invention wherein "a multipole guide of reduced radial dimensions is
17 positioned such that the ion guide rods extend into a counterbore in the entrance end cap of a
18 three dimensional ion trap" (Col. 5, lines 24-27). This is not the present invention Whitehouse
19 repeatedly discloses that the endcaps are located on the ion trap and that the rods of the ion guide
20 extend through the entrance endcap. (See at least Col. 5, lines 39-42, Col. 6, lines 17-22, Col. 6,
21 lines 65-67, and Figures 6 and 7). However, Whitehouse fails to show or suggest capping
22 electrodes which run in parallel with the ion guide but rather merely teaches endcaps defining the
23 region of the ion trap. Therefore, Whitehouse does not teach each and every claim limitation of

1 the present application. Further, Li merely teaches the methods and apparatus for carrying out
2 the steps involved in tandem mass spectrometry using a single quadrupole mass analyzer and
3 also fails to teach an end cap electrode. The combination of the cited references fails to teach
4 each and every claim limitation. Accordingly, the Examiner's rejection under 35 U.S.C. § 103
5 should be withdrawn.

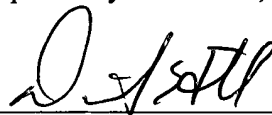
6 Additionally, Whitehouse discloses "[t]he technique of trapping ions in a multipole ion
7 guide using a separate ion guide exit lens potential and releasing ions into a three dimensional
8 ion trap has been described by Douglas in U.S. Pat. No. 5,179,278. Douglas, however, does not
9 teach the configuration of extending the rods of a multipole ion guide into a counterbore of a
10 three dimensional ion trap endcap to improve the trapping efficiency by recapturing the ions
11 within the ion guide that have been rejected by the ion trap entrance orifice." (Col. 5, lines 47-
12 52). Whitehouse teaches that the essential modification for improving the ion trapping efficiency
13 is the extension of the conducting rods through the ion trap endcap. This is nothing like the
14 present invention. Rather, this feature is absent in the present invention. Specifically, the
15 present invention comprises an ion guide having a capping electrode over its entire length, and
16 lacks the endcap which Whitehouse teaches as the essential modification. Due to this
17 fundamental difference between the cited reference and the present invention, the Examiner's
18 rejection under 35 U.S.C. § 103 should be withdrawn.

CONCLUSION

In view of the foregoing, applicant respectfully submits that the present invention represents a patentable contribution to the art and is in condition for allowance. Early and favorable action is accordingly solicited.

Dated: April 19, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Hill', written over a horizontal line.

David M. Hill
Reg. No. 46,170
WARD & OLIVO
708 Third Avenue
New York, New York 10017
(212) 697-6262